

DESCRIPTIONS OF NEW WEST AFRICAN LYCAENIDAE; PAPER II. *

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THE following descriptions have been lying in my portfolio for some time, and I have been intending to add to them descriptions of a dozen or more other species which are manifestly nondescript, but finding no time at my command in which to execute this purpose, I herewith present them as they are. The insects all come from the region of the upper waters of the Ogové River in West Tropical Africa, and were captured by Mr. Good.

Pittsburgh, Jan. 31, 1891.

PSEUDALETIS Druce.

1. *P. zebra*, sp. nov. Upperside:—Head and thorax yellowish brown, abdomen white ringed with pale gray, and tufted at the anal extremity with fulvous. Anterior wings white, faintly laved near the base with stramineous, and narrowly bordered upon the costa and broadly bordered upon the outer margin with black, and further ornamented by three broad black bands, the first and shortest of which crosses the cell about the middle, the next is situated at the extremity of the cell, and a third, which runs from the costa about one-third of the distance from the apex, across the wing in the direction of the outer angle until it is fused with the broad black external margin. The posterior wings are white with a black border, narrow at the external angle and gradually increasing in width toward the anal angle. The tails are very small and black. Underside:—Thorax, abdomen and legs fulvous. Ground

color of the wings white. The anterior wing is marked as upon the upper surface except that the cell at the base is deeply black, the two outermost of the broad black bands are traversed in the middle by a narrow whitish line, while the white of the surface replaces the dark outer margin from the outer angle upwards for half of the distance to the apex. The fringe is black. The posterior wings are marked by a ray of dark brown running from the base along the submedian nervure about half way to the anal angle. Two faint brown lines run transversely across the wing in a direction approximately parallel to the outer margin toward the anal angle, and two similar lines run parallel along the inner margin and all converge in the neighborhood of the anal angle, which is broadly laved with yellow and marked by two small black spots at the points where the tails are given off. The outer margin is fringed with black. The markings of the underside of the posterior wings re-appear to some extent upon the upper surface. Type, ♂, in the collection of the author.

LYCAENESTHES Moore.

2. *L. scintillula*, sp. nov. ♂. Upperside:—Antennae, head, thorax, and abdomen black; wings lustrous orange-red with the costa of the primaries at the base and near the apex somewhat broadly margined with black, and the costa and the inner margin of the secondaries very broadly margined with the same color. The fringes of both wings are black and near the anal angle of the secondaries there are three small black spots, of which two are marginal, and the third is situated above the one nearest the anal angle and is subhastate in form. Underside:—

* For Paper I see *Psyche*, v. 5, p. 423.

Ground color pinkish white with the wings barred and mottled by spots of brown and black. Near the anal angle of the secondaries are two red marginal spots pupilled with black, irrorated with greenish-blue scales. Expanse of wings 25 mm.

Types, four ♂♂ in collection of author and one ♂ presented to the British Museum. (*Lycaenesthes scintillans* Holland, MS.)

3. *L. regillus*, sp. nov. ♀. Upperside dark fuscous with white spaces and black spots. The white spaces are located just beyond the cell and between the median nervules upon the primaries, and are disposed in the form of a marginal band upon the secondaries. Both wings have a conspicuous black spot at the end of the cell defined inwardly by a narrow white line, and succeeded externally by a transverse series of similar spots. The primaries have in addition two subbasal spots of black. Both wings are bordered heavily with black and the posteriors have in addition geminate white marginal lines. Underside:—The ground color of the wings is white. The markings have a general likeness to those of the preceding species, but owing to the lighter ground color of the wings they are more conspicuous. Expanse of wings 25 mm. Type, ♀, in collection of the writer.

It is barely possible that this is the female of *L. scintillula*, but I hesitate to declare it such and name it provisionally.

4. *L. lychnaetes*, sp. nov. Allied to the two preceding species and to *L. leptines* Hew.

♂. Upperside:—Antennae, head, thorax, and abdomen black; wings shining orange-red, the anteriors with the costa broadly and evenly bordered with black and the outer

margin bordered with the same color, the width of the border gradually diminishing from the apex to the outer angle. The posterior wings are broadly bordered with black upon the costal and inner margins, and narrowly upon the outer margin near the anal angle. Underside:—The ground color of the wings is black, both have black fringes, both have narrow, geminate white marginal lines, and both are traversed by irregular series of more or less broken narrow white lines. The posterior wings are adorned with a small black spot at the extremity of the first median nervule, crowned with red and irrorated with blue scales, and with a similar black spot at the end of the submedian nerve. This latter spot is not crowned with red.

Expanse of wings 20 mm. Types in collection of the writer.

There is a female which is upon the under surface almost the exact counterpart of the male just described, but the upperside of the wings is almost uniformly blackish brown. Whether this is the female of *L. lychnaetes*, or not, it is impossible to tell at this time, though the presumption is that this surmise as to the relation of the two forms is correct.

5. *L. rubricinctus*, sp. nov. Male:—Upperside:—Head, thorax, and abdomen dark brown. Wings dark fuscous except upon the margin of the secondaries, which are adorned by a band of orange red extending from the upper radial to the anal angle. This band is marked at each of the intra-neural spaces by a marginal spot of black, of which that situated between the first and second median nervules is the largest. Underside:—The ground color is pale fawn color, growing paler toward the outer margin, and becoming almost white near the outer margin of the secondaries. Both wings have a short

transverse bar at the end of the cell bordered outwardly by a fine paler line; both wings have an irregular transverse band of similar spots, and a submarginal line followed by a marginal series of triangular spots. The secondaries have two marginal spots of black crowned with red and irrorated with blue-green scales.

Expanse of wings 27 mm. Type in the writer's collection.

6. *L. tisamenus*, sp. nov. Allied to *L. sylvanus*, but less than half the size.

Upperside:—The color of the upperside of the wings is uniformly dark violaceous. Underside:—The ground color of the underside of the wings is a light fawn. Primaries.—Just beyond the cell of the primaries there is a dark transverse band which is interrupted between the median nervules, and defined both externally and internally by lighter lines. This is followed toward the margin by a broader and darker transverse band, which runs from the costa to the first median nervule, and is followed by a narrow brown submarginal line. The fringes are dark brown. Secondaries.—There are two subtriangular spots of dark brown, almost black, upon the middle of the secondaries near the costal margin, a similar spot at the end of the cell, and one upon the inner margin about its middle. These spots are followed upon the limbal area by darker shades, outwardly edged by pale lines. The submarginal line of the primaries is continued upon the secondaries, enlarging at the first median nervule, and just before the anal angle into red marginal spots pupilled with black. The fringes are as on the primaries. The palpi and the abdomen upon the lower side are white.

Expanse of wings 20 mm. Type in the collection of the author.

NACADUBA Moore.

7. *N. stratola*, sp. nov. ♂. Upperside:—Both the primaries and the secondaries are dark shining brown in certain lights reflect-

ing very obscurely a greenish blue gloss. The cilia are lighter. Underside:—The ground color is a slaty gray, much paler than the upper surface. Both wings are adorned by a marginal row of small dark spots, succeeded inwardly by a row of sagittate marks, defined inwardly and outwardly by fine light lines. The marginal spot at the anal angle and the one between the first and second median nervule of the secondaries are deep black crowned with a fine line of bright blue. The discal and basal areas of both wings are adorned with dark spots arranged in bands and all defined on the inner and outer edges with lighter colored lines. The inner margin of the primaries is lighter than the rest of the wing.

♀. The female does not differ materially from the male in color and size.

Expanse of wings 26 mm.

Described from numerous examples in the collection of the author.

LYCAENA Fabr.

8. *L. paludicola*, sp. nov. Upperside:—The prevalent color is dark gray, the posterior wings being ornamented with a very narrow marginal line, within which are located between the extremities of the nervules toward the anal angle six subtriangular black spots margined with pale blue. Underside:—The underside is paler in color than the upperside. Both wings have a double dark line at the end of the cell, defined outwardly and inwardly with light lines. Succeeding this upon both wings are bands of darker markings defined by lighter shades on either side, and succeeded by a submarginal row of lunules defined in the same way. The posterior wings are further ornamented by two subquadrate dark brown spots situated upon the costa, one near the middle, the other near the base; and by a circular spot of the same color upon the inner margin near the base. Of the black spots which are so con-

spicuous upon the margin of the posterior wings upon the upperside, only those just at the anal angle and the two between the median nervules reappear upon the underside. Of these the two at the anal angle are obscure, while those between the median nervules are large and very distinct. They are all crowned with red lines and have their black centres irrorated with shining green scales.

Expanse of wings 28 mm. Type in the collection of the author.

I have assigned this species in a gen-

eral way to *Lycaena* Fabr., feeling unable to refer it to any of the recent subdivisions of the genus instituted by the Indian lepidopterists, without such an examination of the neuration as I do not feel justified in making with only one specimen at my disposal. It is very different in appearance from any other species of the group known to me, and recalls *Pseudodipsas cephenes* Hew., so far as the coloration of the upperside of the secondaries is concerned.

ON AN IMPORTANT CHARACTER, HITHERTO LITTLE NOTICED, IN THE FAMILY BUPRESTIDAE.

BY FREDERICK BLANCHARD.

In Comstock's Introduction to Entomology, part i, the many excellencies of which and its fresh treatment of the subject lead us to hope for the early appearance of the succeeding parts, on page 18, there is given a figure of the underside of *Euchroma gigantea* Linn. in which is shown the antecoxal piece of the metasternum, separated by a short transverse suture, the ends arcuately bent towards and reaching the hind coxae. This appears to be the first distinct reference to this peculiarity of the Buprestidae so far as I can learn. Deyrolle, in his Buprestides de la Malasie, plate 4, figs. 3 and 4 exhibits the same thing, but in fig. 25, illustrating the underside of a species of *Pachyscelis*, the suture is not indicated. There is, however, no reference to the antecoxal piece in the text.

From the examination of a considerable number of genera in this family during the last few years, both native and foreign, it appears that this structure is always present and is of much greater importance in limiting the family than the connate first and second ventrals chiefly depended upon heretofore.

Although the members of the family Buprestidae are usually quite easily recognized, some early errors would have been avoided had this character been observed or appreciated; in our own fauna, notably in the case of the genus *Schizopus* Lec., for the reception of which a distinct family, the Schizopodidae, was created although afterwards suppressed.

It need hardly be said that the existence of an antecoxal piece, seen elsewhere among Coleoptera, so far as I know, only in the Adephaga, where the importance of its existence and of its modifications have been so skilfully demonstrated by Dr. Horn, does not necessarily imply any relationship of the Buprestidae to that series, but adds another, and a most impressive one, to the many known instances of the repetition of characters or structures in widely different families, which have been noticed by writers, and especially by Dr. Horn.

HARRISIMEMNA TRISIGNATA—I found two of these grotesque larvae on *Spiraea tomentosa*, Sept. 22nd, Northborough, Mass. The only food-plant given by Mr. Edwards is "*Syringa*." The larva bored into bits of rotten wood, and "backed out" with the chips. These chips were rolled into neat pellets of almost uniform size, very round,